



# Attacks Against Saudi Oil Rattle Markets

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September 14, 2019, saw a successful attack against major oil infrastructure in Saudi Arabia (the largest oil exporter), which disrupted 5.7 million barrels of daily production (mb/d), over half of Saudi oil production and about 5% of global supply. For context, U.S. crude oil production is approximately 12 mb/d. Global oil markets have responded with an initial price increase and subsequent pullback. The magnitude and duration of the price rise will depend on many factors, such as repair time, additional supplies, the potential confirmation of the perpetrator, and any related security responses.

## Implications for Saudi Arabia

The attacks on the Abqaiq processing facility and the Khurais oil field in eastern Saudi Arabia, claimed by Yemen's Houthi rebels, were the latest in a series of cross-border attacks on energy and transportation sites in the kingdom apparently linked to the ongoing war in Yemen and the Saudi-U.S. confrontation with Iran. The incidents have demonstrated the vulnerability of critical Saudi infrastructure to missile and drone attacks and raised complicated strategic questions for Saudi and U.S. policymakers concerning attribution and potential responses. Iran's government denies U.S. and Saudi charges of responsibility and has pledged to retaliate for any future attacks on Iran. Saudi Arabia's military operations in Yemen have created demands on Saudi security and defense capabilities in addition to fiscal pressures that have been amplified by oil prices, which have remained below the kingdom's budget targets.

Saudi leaders deny reports that they may delay a planned initial public offering of shares in their state-owned oil company, Aramco, which operates facilities and infrastructure targeted in recent months. However, additional attacks, or delays in restoration efforts, could extend negative short-term effects and reduce investor confidence in the security of Aramco assets. Over time, relative export volumes, market prices, and security and reconstruction costs will determine the attacks' fiscal effects on the kingdom.

#### The Abgaig Oil Facility

The Abqaiq facility is the largest oil processing facility in the world, with a capacity of about 13 mb/d, but has been operating below its capacity. Abqaiq is a key processing facility for light and extra light Saudi oil that tend to be high in sulfur. To stabilize the crude, hydrogen sulfide and other contaminants need to be removed. An attempted terrorist attack on the facility in 2006 prompted joint Saudi-U.S. efforts to improve critical infrastructure security in the kingdom.

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### **Global Responses**

Crude oil markets responded to the attacks with an initial price rise. The price of the U.S. benchmark crude, West Texas Intermediate (WTI), on Friday before the attacks was \$54.85 per barrel, while the international benchmark, known as Brent, was \$60.22. At the market's close on September 16, WTI was priced at \$62.62 and Brent was \$68.75, a 14% increase for both. After a Saudi press conference that included Minister of Energy, Prince Abdulaziz Bin Salman, prices have started to retreat from Monday's highs. WTI is down 6% at the opening of trading September 18, while Brent declined 6.5%

Aramco is working to replace the disrupted supply and restore production capacity. Industry analysts expect that full repairs could take weeks or even months, but Saudi officials report they have restored half their lost production capacity and will restore the rest within weeks. Saudi officials have invited international observers to investigate the attack, and state that the kingdom "will take the appropriate measures based on the results of the investigation, to ensure its security and stability."

On September 15, President Trump authorized a release of oil from the U.S. Strategic Petroleum Reserve (SPR) in response to the attack against Saudi Arabia's oil production. However, on September 17 as oil markets calmed, President Trump stated that a release from the SPR may no longer be needed. In the past, presidents have ordered a release in response to severe interruptions in coordination with other IEA member countries.

According to a recent announcement, the IEA is monitoring the situation closely and is in close contact with Saudi officials. Commercial stocks are supplying the market, and the IEA has not called for a coordinated member country release. The most recent coordinated release occurred in June 2011, after political unrest in Libya led to a production capacity loss of 1.7 mb/d. At that time, crude oil prices were trading above \$100/barrel and the Fukushima disaster had recently occurred, increasing Japanese demand. Today, prices are stabilizing under \$70/bbl, and the United States is the top crude oil producer in the world.

### Possible Additional Oil Market Consequences

As new information comes to light and questions are answered, there may be further ramifications for oil markets. For example, if Iran were determined to be the ultimate perpetrator of the attack, and if Saudi Arabia and/or the United States were to attack Iran, risk premiums could rise. Additionally, a military response may raise the risk for oil and natural gas tankers that transit the Strait of Hormuz.

The vulnerability of Abqaiq, according to some market analysts, represents a risk factor that has not been fully factored into oil prices. In the future, prices could be \$10 higher than prior to the attacks regardless of the speed of repairs. Any additional attacks could push prices even higher.

Depending on the response from the Organization of the Petroleum Exporting Countries (OPEC) members to any need to replace Saudi exports, it could renew congressional interest in the NOPEC (No Oil Producing and Exporting Cartels) Act of 2019 (H.R. 948 and S. 370). The attacks could also lead some in Congress to explore new means of improving critical infrastructure protection capabilities domestically and in partner countries.

China is the largest importer of Saudi crude oil, at 1.5 mb/d, followed by Japan at 1 mb/d. These countries may have incentive to purchase U.S. crude, especially U.S. shale supplies, which tend to be similar to Saudi crude that has been removed from the market. According to the U.S. Energy Information Administration (EIA), Saudi Arabia is the second-largest source of U.S. crude oil imports behind Canada, providing 11% of gross U.S. crude imports.

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